



The Center for
Voting and Democracy

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To: Debra Bowen, Secretary of State
From: Rob Richie, Executive Director, FairVote
Re: San Francisco elections

I hope all is well with you and your work as Secretary of State – we remain thrilled that such a savvy advocate of electoral reform and fair elections has taken this critically important position.

These of course are apprehensive times in terms of voting equipment and election administration. We at FairVote really are rooting for your office to figure out a better way than what we have seen over the years from the private vendors that run our elections. The system obviously is broken, starting with the federal level and the lack of national standards, a chaotic testing regimen and the decentralized hodgepodge of election administration. Existing vendors seem to use that chaos to their financial advantage, and potentially new vendors find it so bewildering and expensive to enter the field that it has undermined new vendors and the innovations or new equipment that would come with them. And that in turn leaves states, counties and voters between a rock and a hard place – the richest nation in the world left with decidedly inferior voting equipment and software.

As you know, San Francisco is in a tough place moving toward November's election. Just as in past years like 2003, we at FairVote have been following the situation in San Francisco closely. Like you, we were greatly chagrined to see ES&S reach a new low over the AutoMARK. We certainly understand your office's frustration with ES&S -- someday we will have to jointly commiserate over our incredible frustrations with ES&S, not only in California, but in several other ES&S states/counties where instant runoff voting is on the front burner -- and we applaud your attempts to hold them to reasonable standards. At the same time, we think it's important to precisely target your interventions so they are narrowly tailored and don't inadvertently make things even more difficult for San Francisco, either its Department of Elections or its voters. After all, San Francisco has had to bear the brunt of ES&S for some time.

Specifically, after examining your conditions stated in your letter dated September 14, 2007 to ES&S, we believe there are other interventions that would be equally effective in fostering a secure election, but be a lot less challenging for the Department of Elections to implement – and a lot better for instant runoff voting (a.k.a., ranked choice voting, RCV). At the end of the day, what we all want is a good election where voters are able to cast their ballots with the confidence that the election has security and integrity.

Following is some of our analysis regarding some of the conditions that have been ordered by the Secretary of State's office, and alternative ways that could ensure the security and integrity of the election that would be easier for the Department to implement, and would involve less disruption for San Francisco voters.

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1) Tallying ballots at the precinct: Your letter says that, due to the Eagle having a degree of difficulty in reading red, green or very light blue ink, San Francisco will not be able to use precinct results from the Eagles, even as preliminary results. This would mean that, on election night, the only election results being released would be the handful of absentee voter ballots that have been processed up to that time. My concern is that, this intervention may in fact undermine the security of San Francisco's elections. Bev Harris from Blackbox Voting is quoted in yesterday's San Francisco Bay Guardian article regarding the San Francisco situation, saying that "Anything that doesn't get counted on election night is at high risk for fraud." All things being equal, we agree with her assessment on that -- at least for first choices in an RCV election. That's why in San Francisco we have been at the forefront of pushing for not only as much election night results as possible, but for the public posting of ballot images on the Department's web site on election night so that any competent person can download those ballot images and rerun the election results for themselves (we call this "open source ballots"). San Francisco's RCV elections have been perhaps the most secure in the nation because there have been multiple levels of redundancy that can be used to check and crosscheck election results, including: a) first rankings coming from the Eagle cartridges, which are printed out and posted in the precincts on election night; b) the capturing of ballot images into a PCM card which are then tabulated by the central tabulator; c) the posting of the ballot images on the Department's web site so that any member of the public can download those ballot images and tabulate results; and finally d) the post-election manual tally.

To our knowledge, no other election in United States has had so many levels of redundancy built into it. But your order to not post preliminary results disrupts these multiple levels of security. It's not clear to me what is gained by doing this. Our understanding of the "invisible ink" problem is that it likely will affect a small number of voters, specifically those who decide not to use the precinct pen given to them and instead use their own pen that is not black or dark blue. Certainly it is never good when any voter might inadvertently have their ballot not counted, but my understanding is that the Eagle's "error notification" abilities would reject a ballot that appears to have an undervote or any missing rankings as a result of the "invisible ink." Any ballot where the wrong ink is used and cannot be read will show up as a blank -- as an undervote -- and the Eagle is programmed to kick back that ballot to the voter who would then have a chance to use a black ink pen. So the Eagle already catches the types of ballots that may result from this invisible ink problem.

Also, your office is far more knowledgeable about California election law than I am, but California state law seems to require the posting of vote totals in precincts. See Section 19370 of the CA Elections Code:

<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=elec&group=19001-20000&file=19370-19371>

Is there any concern that your order might violate state law -- at least without a very compelling reason for it?

Proposed remedy: After analyzing this situation and based on the information I have, what makes the most sense to me is to allow San Francisco to use the existing "error notification" capabilities and procedures of "open source ballots" i.e. posting ballot images on the Department's web site, so

as to retain the multiple levels of redundancy and security that have existed in prior elections. Given error notification and multiple redundancies, I think it makes sense to allow San Francisco to use the precinct results both for posting as preliminary results on election night, as well as part of the official election results, without having to run all of the precinct ballots through the IV-C. Given that the Eagles have error notification, the "invisible ink" problem is best dealt with by the existing technology and the existing procedures. The problem you have identified, i.e. the Eagles not reading light blue, red or green ink is spotted by the equipment, just as it spots all undervotes.

At the very least, if you do not want the precinct/Eagle results included as part of the official tally, the Department should be allowed to use the precinct results as preliminary results. This is important towards public confidence in the election, because if they see hardly any election results being put out on election night or even for several days, what are people going to think? Bev Harris and others believe that would be a red flag, and we agree.

2) Outstacking requirements: On page 4 of your letter, there is a requirement that the IV-C must be programmed to outstack all RCV ballots that have undervotes in ANY ranking. So in other words, any precinct voter who doesn't use all three of their rankings -- even after the error notification tells them that they have not used all three of their rankings and the voters says, "that's OK, I only wanted to use one (or two) of my rankings" -- that ballot will be outstacked. And then an election worker must manually REMAKE that ballot, and then it's tabulated. To put this in the context of the upcoming mayoral race, a race for which there are typically 240,000 ballots, incumbent Mayor Gavin Newsom is running for reelection with no major opponents; none of his opponents are even known outside their own small circle of friends. It's very conceivable that there will be 200,000 or more ballots that only have Gavin Newsom ranked on that ballot, or Newsom and one other candidate, with 60% of those ballots having been cast in precincts where the voting equipment has error notification that catches any undervotes. That would mean 120,000 or so ballots, possibly more, that would have to be remade, even though those ballots benefited from error notification in the precincts and have undervotes that clearly resulted from voter intent rather than "invisible ink." I fail to see what public interest is realized by this intervention.

Proposed remedy: Instead of outstacking and doing remakes if all three rankings are not filled out, San Francisco could outstack all completely undervoted ballots, i.e. those with no rankings at all, and examine those for evidence of failure to read them due to the "invisible ink" problem. The rationale behind this is that if the equipment can read one ranking, it should be able to read all available rankings on the ballot unless the voter for some reason changed pens, using a "good pen" for one ranking and a "bad pen" with "invisible ink" for other rankings -- which seems extremely unlikely. A more appropriate intervention would be to simply examine all completely undervoted ballots that have no rankings. San Francisco typically has about 25,000 of such completely undervoted ballots, so that would mean the Department would have to examine far fewer ballots, saving them a lot of work. Yet this proposed intervention would still ensure that undervotes are the result of a voter's intent, rather than "invisible ink".

3) Manual count triggers and RCV: On page 5 of your letter, it says that if there is a discrepancy between the manual count and machine count of 10% between the last-place candidate and the second to last place candidate, then additional precincts must be manually counted, starting with 5% more precincts. As I understand this, let's say you have a last-place candidate with two votes, and a

second to last place candidate with three votes -- a margin of one vote -- a 10% discrepancy would be 0.1 of a vote. Or let's say you have a next-to-last place candidate with 20 votes, and a last-place candidate with 10 votes, a 10% discrepancy would be one vote. So if the Department were even a single vote off in its manual tally, they would have to escalate and include 5% more precincts. It's likely that the Department could easily be off by a single vote no matter how many precincts they do. If so, they may have to completely recount the entire election by hand in order to comply with this order -- and all for candidates who have a handful of votes. One can imagine a scenario where the Department is looking for an errant ballot, and having to increase the percent of the manual tally to find it, because they can't find a ballot that separates the last-place candidate with five votes and the next-to-last candidate with eight votes -- in an election where all incumbents are going to win in a landslide. If I understand this correctly, I don't see how the public interest is served by this intervention.

This requirement also appears to show no recognition of what is known as "simultaneous elimination" of candidates who have no mathematical chance of winning, which the SF charter calls for. It applies to all candidates, even those with a handful of votes. With simultaneous eliminations, let's say you have 3 last place candidates whose vote totals together equal 10 votes, and the candidate right above them has 20 votes. That means even if one of the bottom three candidates received all of the votes from the other two, that candidate still would not have enough to surpass the candidate with 20 votes and would still be eliminated next. So those bottom three candidates had "no mathematical chance of winning," and the San Francisco charter calls for simultaneous eliminations of such candidates who have no mathematical chance of winning. But Secretary Bowen's order seems to disregard that. I also recall that a previous analysis of ES&S's equipment completed by Secretary Bruce McPherson's team during their 2006 certification procedures erred in its understanding of "simultaneous eliminations," blaming ES&S's equipment for a feature that fulfills the charter. In fact, the analysis done by Secretary McPherson's team was flawed, yet unfortunately remains as part of the public record.

Proposed remedy: You should waive this requirement regarding 10% discrepancy between the manual and machine counts for last-place candidates who are eliminated, and respect San Francisco's charter which calls for simultaneous eliminations. It's not clear to us what is gained by this order, and its potential for creating a difficult situation for the Department of Elections is alarming.

4) Multi-winner elections: You have included a provision for an election with "multi-winner elections." FYI, there are no multi-winner elections in San Francisco this November, or February, or June. There will be some multi-winner elections in November 2008, namely school board elections and community college board elections, but those are not elected by IRV. By November 2008, hopefully, San Francisco will have new voting equipment. So it would seem to make sense to simply strike this part of your order.

5) Manual tallies and absentee ballots: Your letter is requiring a 25% manual tally for all absentee ballots processed on the Optech IV-C, and a 10% manual tally for precinct ballots also processed on the IV-C. It is not clear why you would have a different percent manual tally for ballots being processed on the same piece of equipment, i.e. the Optech IV-C. Perhaps you are

intending a higher percent for absentees to make up for the lack of "error notification" that is inherent with absentee ballots. But the great value of error notification is greatly diminished when the absentee voter, by definition, will not have an opportunity to correct her/his ballot.

Proposed remedy: Lower the manual tally for absentee ballots from 25% to 10%, like it is for precinct ballots. 10% would still be ten times what San Francisco has ever used before, and seems to us to be sufficient and appropriate. We applaud your goal of increasing the percent of the manual tally, in San Francisco and the rest of California, but 25% seems to be unnecessarily high.

Again, my colleagues and I want to thank you for your important work to make elections work better in the United States and California. Certainly these vendors deserve to be cracked down on, and some degree of intervention is necessary. But it has been my observation that the interventions must be narrowly tailored and precisely targeted to create as little disruption as possible to the smooth running of an election. Otherwise, you run the risk of provoking a backlash to your important and worthy efforts. We completely respect and agree with your goal to make elections more secure, and stand ready to assist you however we can.

Please feel encouraged to contact me if you wish to discuss these matters. I wish you great success in your endeavors, and hope that the recommendations above are helpful toward the mutual goal of ensuring that San Francisco has a secure and successful election. Beyond San Francisco, we also have more general ideas about how to improve election administration and voting equipment that we have been discussing with others, such as Minnesota Secretary of State Mark Ritchie. Mark will be a keynote speaker at our national conference from November 9-11, which you might find of interest, since there is a component on election security, along with other ideas of great interest to you like the National Popular Vote plan and ranked choice voting. You can read more at www.claimdemocracy.org -- we'll also be having people like Ray Martinez give testimonials to our chair John Anderson at our 15th anniversary gala dinner on November 10. I would be happy to discuss these "big picture" details further, if that is of interest.